

### ABSTRACT

A probe, listen and select (PLS) technique can be used to select from an available frequency spectrum a frequency band whose communication quality is suitable for wireless communication at a desired rate. Probe packets can be transmitted on different frequencies (223) during a known period of time ( $T_{PLS}$ ), and frequency channel quality information can be obtained (225) from the probe packets. This quality information can then be used to select a desirable frequency band (227). The communication quality of the selected band can also be used as basis for selecting (141) from among a plurality of modulation and coding combinations that are available for use in communications operations.